interior of our country. This retardation is no doubt brought about by the slower cooling of the waters of the Great Lakes than that of the land areas adjacent to them.

These simple but outstanding effects of terrestrial controls, made manifest by a study of the normal daily temperatures, should make us pause in our contemplation of efforts to correlate variations in the so-called "solar constant" and local responses in temperature. It seems evident that anyone seeking to establish a relation between a change in the radiation from the sun and the local temperature should first take into consideration and determine the factor of terrestrial control that is peculiar to each observing station. This response for one station has a way of differing from that of other stations that is peculiarly its own. It might be 6 days, as at El Paso, or 100 days as at San Francisco.

TROPICAL DISTURBANCE OF AUGUST 18–25, 1935

By W. F. McDONALD

[Weather Bureau, Washington, September 1935]

The first indications of probable origin of this hurricane appeared on August 17, or possibly a little earlier, as a mild general disturbance of the normal trade-wind conditions over the lesser Antilles, attended by a slight but fairly widespread depression of the barometer, that became quite definitely localized during the night of the 17th-18th in the area around the intersection of the twentieth parallel and the sixtieth meridian. (The synoptic situation on the morning of August 18 is shown on chart IX.)

The American tanker *California Standard* made the first definite contact with the developing storm center on the morning of August 18, when a northeast gale was encountered near latitude 22° N., longitude 65° W. During that afternoon the wind rose at maximum to storm force (Beaufort 11) and the barometer fell to 29.55 inches, the lowest point, about 8 p. m., after which the wind shifted through east to southeast by south, holding the force of a whole gale (Beaufort 10) until the morning of the 19th. It would appear from these observations that the *California Standard* crossed the track of the storm not far in advance of the center, which at that time was moving west-northwest.

The next report which clearly identified the location and intensity of the cyclone was obtained from the American steamship *Angelina* which passed very close to the center about 5 a. m. of the 21st. This ship was then near 27° N., 68°30′ W. A barometer reading of 28.2 inches was observed, attended by hurricane winds which shifted from northeast through west to southwest, without a lull. The storm had by that time entered the recurve and was moving almost due northward; the *Angelina* was involved in the left-hand semicircle quite close to the center.

The hurricane moved on northward during the 22d, and on the morning of the 23d was central about 180 miles west of Bermuda. Shipping had been well warned of the approximate position and course of the disturbance, so that vessels successfully avoided the center, and it was not until the morning of the 24th that another ship was heavily involved.

The storm had by that time turned northeastward, and was moving at a much more rapid rate. The British steamer *York City* encountered the central region about 400 miles northeast of Bermuda, and there for 24 hours the vessel experienced storm conditions culminating about 5 a. m., August 24, in a south-to-west hurricane that lasted for 4 hours and caused considerable damage to the lifeboats and superstructures of the ship. The barometer fell to 28.71 inches (uncorrected) at the lowest point, when the ship was in a position 36°30′ N., 59°30′ W. The wind changes, from south-southeast through southwest to northwest, show that the *York City* passed fairly near and just behind the center of the storm, then moving rapidly northeastward.

The synoptic situation over the Atlantic on the morning of August 24, when the *York City* was in the hurricane, is shown in chart X. This chart also gives the full track of the hurricane center, which again turned northward during the 24th, and on the morning of the 25th was over Newfoundland. The disturbance rapidly diminished in intensity thereafter.

As the storm center passed over the Grand Banks, it caused heavy damage to fishing fleets and took a toll of lives estimated from press reports at upward of 50 in all, some as far northward as the Labrador coast. No life losses have been reported from the earlier movements of this hurricane.

The rate of progression during the first 5 days, while the cyclone moved from its origin within the Tropics to the waters west of Bermuda, averaged only 8 to 10 miles per hour. For the last 2 days, August 23 to 25, the rate of movement tripled and averaged nearly 30 miles per hour.

BIBLIOGRAPHY

C. FITZHUGH TALMAN, *in Charge of Library*

RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Andrews, Rapin.

Diary of Rapin Andrews, 1837–74, Perry Township, Allen County, Ind. n. p. tables. 27 cm. (Typewritten.) (January 1837 to May 1839, Gorham, Ontario County, N. Y. July 1839 to April 1874, Perry Township, Allen County, Ind.)

Gillette, Halbert P.

The cycles that cause the present drought. [1935.] [6 p.] diagrs. 29½ cm. (A paper read June 26, 1935, at the annual meeting of the American meteorological society at Los Angeles, Calif.)

Great Britain. Meteorological office.

Averages of bright sunshine for the British Isles for periods ending 1930. London. 1934. 41 p. tables. 24½ cm.

A handbook of weather, currents, and ice, for seamen. London. 1935. 151 p. maps, tabs., diagrs. (horn card in pocket in back.) 23½ cm. (M. O. 379.)